Listing of Claims

The listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Original) A process for determining the interaction of a substance to amyloid precursor protein (APP) or amyloid β peptide (Aβ), said method comprising

(a) forming a first test solution comprising (i) APP or APP variant having an sAPPβ region and an Aβ region, (ii) a substance, and (iii) a first antibody, wherein the first antibody is specific to the sAPPβ region of the APP or APP variant, under conditions favoring formation of an sAPPβ-antibody complex, to give a first test signaling reading of the sAPPβ-antibody complex;

(b) forming a second test solution comprising (i) the APP or APP variant having an sAPPβ region and an Aβ region, (ii) the substance, and (iii) a second antibody, wherein the second antibody is specific to the Aβ region of the APP or APP variant, under conditions favoring formation of an Aβ-antibody complex, to give a second test signaling reading of the Aβ-antibody complex;

(c) forming a control solution comprising (i) the APP or APP variant having an sAPPβ region and an Aβ region, and (ii) the first and second antibodies, under conditions favoring formation of an sAPPβ-antibody complex and an Aβ-antibody complex, to give a first control signaling reading of an sAPPβ-antibody complex and a second control signaling reading of an Aβ-antibody complex;

(d) comparing the first test signaling reading and the first control signaling reading, and comparing the second test signaling reading and the second control signaling reading,

wherein:

(i) if the first test signaling reading is equal to the first control signaling reading and the second test signaling reading is equal to the second control signaling reading, then the substance does not interact with APP,

(ii) if the first test signaling reading is lower than the first control signaling reading and the second test signaling reading is equal to the second control signaling reading, then the substance binds specifically to the sAPPβ region of the APP,

(iii) if the first test signaling reading is equal to the first control signaling reading and the second test signaling reading is lower than the second control signaling reading, then the substance binds specifically to the Aβ region of the APP.

2. (Original) . The process of Claim 1, wherein each of the test solutions and the control solution further comprises a diluent.

3. (Original) The process of Claim 1, wherein the test solutions and the control solution further comprises a pH control agent.

4. (Original) The process of Claim 1, wherein the substance has a molecular weight below about 2 kD.

5. (Original) The process of Claim 1 wherein the APP is detectably labeled with a ligand.

6. (Original) The process of Claim 1 wherein the test solutions and the control solution comprise an acceptor bead.

7. (Original) The process of Claim 1 wherein the second antibody is specific to amino acids 1-17 or 28-40 of Aβ.

8. (Original) The process of Claim 1 wherein the second antibody is specific to the C-terminus of the Aβ region.

9. (Original) The process of Claim 1 wherein the second antibody is specific to the N-terminus of the Aβ region.

10. (Original) The process of Claim 1 wherein the APP or APP variant is an APP variant.

11. (Original) A process for determining the interaction of a substance to amyloid β peptide (Aβ), said method comprising

(a) forming a first test solution comprising (i) APP or APP variant having an sAPPβ region and an Aβ region, said Aβ region having a first sub-region and a second sub-region , and (ii) the substance, and (iii) a first antibody, wherein the first antibody is specific to the first sub-region of the Aβ region of the APP or APP variant, under conditions favoring formation of an Aβ-antibody complex, to give a first test signaling reading of the Aβ-antibody complex;

(b) forming a second test solution comprising (i) the APP or APP variant having an sAPPβ region and an Aβ region having the first sub-region and the second sub-region , (ii) the substance, and (iii) a second antibody, wherein the second antibody is specific to the second sub-region of the Aβ region of the APP or APP variant, under conditions favoring formation of an Aβ-antibody complex, to give a second test signaling reading of the Aβ-antibody complex;

(c) forming a control solution comprising (i) the APP or APP variant having an sAPPβ region and an Aβ region having the first sub-region and the second sub-region , and (ii) the first and second antibodies, under conditions favoring formation of an Aβ-antibody complex, to give a first control signaling reading of an Aβ-antibody complex and a second control signaling reading of an Aβ-antibody complex;

(d) comparing the first test signaling reading and the first control signaling reading, and comparing the second test signaling reading and the second control signaling reading,

wherein:

(i) if the first test signaling reading is equal to the first control signalin reading and the second test signaling reading is equal to the second control signaling reading, then the substance does not interact with Aβ,

(ii) if the first test signaling reading is lower than the first control signaling reading and the second test signaling reading is equal to the second control signaling reading, then the substance binds specifically to the first sub-region of Aβ,

(iii) if the first test signaling reading is equal to the first control signaling reading and the second test signaling reading is lower than the second control signaling reading, then the substance binds specifically to the second sub-region of Aβ.

12. (Original) The process of Claim 11, wherein the first sub-region of Aβ is the C-terminus, and the second sub-region of Aβ is the N-terminus.

13. (Original) The process of Claim 11, wherein each of the test solutions and the control solution further comprises a diluent.

14. (Original) The process of Claim 11, wherein each of the test solutions and the control solution further comprises a pH control agent.

15. (Original) The process of Claim 11, wherein the APP or APP variant is an APP variant.

16. (Original) The process of Claim 11, wherein the substance has a molecular weight below about 2 kD.

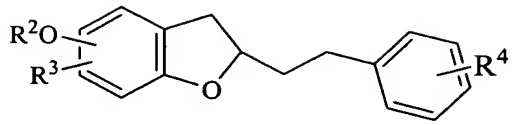
17. (Original) The process of Claim 11 wherein the APP or APP variant is detectably labeled with a ligand.

18. (Original) The process of Claim 11 wherein the test solutions and the control solution comprise an acceptor bead.

19. (Original) A substance which interacts with APP or Aβ, the structure of which is identified by the assay of Claim 1.

20. (Original) A substance which interacts with APP or Aβ, the structure of which is identified by the assay of Claim 11.

21. (Original) A compound of formula (I)



(I)

wherein

R^4 is optionally present and is selected from the group consisting of

(a) halogen,

(b) C_{1-6} alkyl, and

(c) C_{1-6} alkoxy;

R^2 is selected from the group consisting of

(a) hydrogen,

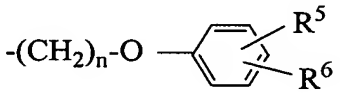
(b) $(CH_2)_m$ –C(=O)-OR^5 wherein R^5 is selected from the group consisting of hydrogen and C_{1-6} alkyl;

m is 1, 2 or 3;

R^3 is selected from the group consisting of

(a) hydrogen, and

(b)



wherein R^5 and R^6 are selected from the group consisting of

(i) hydrogen,

(ii) halogen,

(iii) C_{1-6} alkyl,

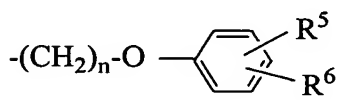
(iv) C_{1-6} alkoxy, and

(v) tetrazolyl,

n is 3, 4 or 5,

or a pharmaceutically acceptable salt thereof.

22. (Original) A compound of claim 21 wherein R^3 is



23. (Original) A method of treating Alzheimer's Disease in a mammal in need thereof, said method comprising administering to the mammal a therapeutically effective amount of a compound of claim 21, or a pharmaceutically acceptable salt thereof.